

## EAST Search History

## EAST Search History (Prior Art)

| Ref # | Hits | Search Query   | DBs                | Default Operator | Plurals | Time Stamp          |
|-------|------|--|--------------------|------------------|---------|---------------------|
| S1    | 1    | ("3330645").PN.  | US-PGPUB;<br>USPAT | OR               | OFF     | 2007/10/02<br>14:21 |
| S2    | 1    | ("4721287").PN.  | US-PGPUB;<br>USPAT | OR               | OFF     | 2007/10/29<br>15:21 |
| S3    | 336  | 266/217.ccls.  | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/29<br>16:04 |
| S4    | 406  | 266/280.ccls.  | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/29<br>16:04 |
| S5    | 100  | S3 and nozzle  | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/29<br>16:05 |
| S6    | 70   | S4 and nozzle  | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/29<br>16:28 |
| S7    | 8758 | nozzle and refractory and metal and heat                       | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/30<br>11:49 |
| S8    | 849  | nozzle and refractory and metal and heat and "266".<br>clas.   | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/30<br>11:49 |
| S9    | 88   | nozzle same refractory same metal same heat and<br>"266".clas. | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/30<br>11:50 |
| S10   | 2859 | nozzle and "266".clas.   | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/30<br>13:14 |
| S11   | 204  | nozzle same refractory same furnace and "266".clas.            | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/10/30<br>13:15 |
| S14   | 170  | nozzle same refractory same heat and "266".clas.               | US-PGPUB;<br>USPAT | ADJ              | ON      | 2007/11/01<br>08:14 |

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| S15 | 336  | 266/217.ccls.   | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2007/11/01<br>13:15 |
| S16 | 33   | S15 and nozzle and (copper or stainless steel)                                    | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2007/11/01<br>13:15 |
| S17 | 406  | 266/280.ccls.   | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2007/11/01<br>13:18 |
| S18 | 15   | S17 and nozzle and (copper or stainless steel)                                    | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2007/11/01<br>13:18 |
| S19 | 393  | nozzle same heat conducting   | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2007/11/01<br>13:23 |
| S20 | 219  | nozzle same heat conducting and gas   | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2007/11/01<br>13:24 |
| S21 | 1    | ("5871785").PN.   | US-PGPUB;<br>USPAT                        | OR  | OFF | 2007/11/01<br>13:32 |
| S22 | 1    | ("3971548").PN.   | US-PGPUB;<br>USPAT                        | OR  | OFF | 2007/11/01<br>13:41 |
| S23 | 1    | ("5371759").PN.   | US-PGPUB;<br>USPAT                        | OR  | OFF | 2007/11/01<br>13:42 |
| S24 | 1392 | "266".clas. and nozzle same refractory  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2008/06/23<br>16:32 |
| S25 | 902  | "266".clas. and nozzle same refractory and gas and metal                          | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2008/06/23<br>16:33 |
| S26 | 546  | "266".clas. and nozzle same refractory and gas and metal and (jacket or cover\$3) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2008/06/23<br>16:34 |

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| S27 | 298 | "266".clas. and nozzle same refractory and gas and metal and (jacket or cover\$3) and (nozzle same furnace) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/06/23<br>16:34 |
| S28 | 12  | S27 and nozzle.ti.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/06/23<br>16:37 |
| S29 | 115 | nozzle.ti. and refractory and gas same furnace  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/06/23<br>16:58 |
| S30 | 144 | 266/268.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/07/08<br>16:22 |
| S31 | 30  | 266/268.ccls. and nozzle and refractory   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/07/08<br>16:43 |
| S32 | 339 | 266/217.ccls.   | US-PGPUB;<br>USPAT                        | ADJ | ON | 2008/07/08<br>17:06 |
| S33 | 33  | S32 and nozzle same refractory and gas  | US-PGPUB;<br>USPAT                        | ADJ | ON | 2008/07/08<br>17:06 |
| S34 | 62  | "266".clas. and nozzle same refractory and gas and metal and (heat\$3 near2 element)                        | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/07/08<br>17:14 |
| S35 | 268 | 266/220.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:23 |

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| S36 | 853  | 266/99.ccls.                       | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:23 |
| S37 | 217  | 266/100.ccls.                      | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:23 |
| S38 | 146  | 266/268.ccls.                      | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:23 |
| S39 | 1457 | S35 or S36 or S37 or S38           | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:25 |
| S40 | 191  | S39 and nozzle same (gas or vapor) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:25 |
| S41 | 122  | S40 and refract\$5                 | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:25 |
| S42 | 66   | S41 and furnace                    | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:25 |
| S43 | 55   | S42 and (copper or Cu or steel)    | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:26 |

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| S44 | 371 | 266/265.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:28 |
| S45 | 261 | S39 and (nozzle or tuyere) same (gas or vapor)          | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:29 |
| S46 | 160 | S45 and refract\$5                                      | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:29 |
| S47 | 85  | S46 and furnace   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:29 |
| S48 | 71  | S47 and (copper or Cu or steel)                         | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:29 |
| S50 | 280 | S39 and (nozzle or tuyere) same (gas or vapor or fluid) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:32 |
| S51 | 169 | S50 and refract\$5                                      | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:32 |
| S52 | 92  | S51 and furnace   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:32 |

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| S53 | 77     | S52 and (copper or Cu or steel)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>16:32 |
| S54 | 290602 | (nozzle or tuyere) same (gas or vapor or fluid)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:03 |
| S55 | 5753   | S54 and refract\$5 and furnace and (copper or Cu or steel)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:04 |
| S56 | 1137   | S55 and "266".clas.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:05 |
| S57 | 1019   | S56 and metal   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:05 |
| S58 | 7747   | (nozzle or tuyere) same (gas or vapor or fluid) same refractory   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:07 |
| S59 | 2419   | (nozzle or tuyere) same (gas or vapor or fluid) same refractory and furnace and (copper or Cu or steel)                 | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:07 |
| S60 | 653    | (nozzle or tuyere) same (gas or vapor or fluid) same refractory and furnace and (copper or Cu or steel) and "266".clas. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:08 |

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| S61 | 579   | (nozzle or tuyere) same (gas or vapor or fluid) same refractory and furnace and (copper or Cu or steel) and "266".clas. and metal   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:08 |
| S62 | 404   | (nozzle or tuyere) same (gas or vapor or fluid) same refractory same furnace and (copper or Cu or steel) and "266".clas. and metal  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:08 |
| S63 | 308   | (nozzle or tuyere) same (gas or vapor or fluid) same refractory same furnace same metal and (copper or Cu or steel) and "266".clas. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:08 |
| S64 | 10    | ("1362702"   "2023025"   "3031178"   "3558119"   "3831918"   "4043542").PN. OR ("4572487").URPN.                                    | US-PGPUB;<br>USPAT; USOCR                 | ADJ | ON | 2008/09/23<br>17:18 |
| S65 | 10137 | uwe.in.   | US-PGPUB;<br>USPAT; USOCR                 | ADJ | ON | 2008/09/23<br>17:34 |
| S66 | 7     | zulehner.in.  | US-PGPUB;<br>USPAT; USOCR                 | ADJ | ON | 2008/09/23<br>17:34 |
| S67 | 12    | zulehner.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:35 |
| S68 | 11    | rinnhofer.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/23<br>17:35 |
| S69 | 12    | ("3076085"   "4228314"   "4533385"   "4592066"   "4617671"   "4749408"   "5052018").PN. OR ("5371759").URPN.                        | US-PGPUB;<br>USPAT; USOCR                 | ADJ | ON | 2008/09/24<br>18:12 |

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| S70 | 22 | (US-20010033046-\$ or US-20020158377-\$ or US-20030090043-\$).did. or (US-3330645-\$ or US-3971548-\$ or US-4023676-\$ or US-4138098-\$ or US-4249719-\$ or US-4424955-\$ or US-4746038-\$ or US-4930757-\$ or US-4951929-\$ or US-5198179-\$ or US-5257280-\$ or US-5371759-\$ or US-5458320-\$ or US-5465942-\$ or US-5744050-\$ or US-5803948-\$ or US-5863490-\$ or US-5871785-\$).did. or (US-3330645-\$).did. | US-PGPUB;<br>USPAT; USOCR                 | ADJ | ON | 2008/09/24<br>18:21 |
| S71 | 3  | S70 and spacer  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/24<br>18:21 |
| S72 | 3  | S70 and thread  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/24<br>18:22 |
| S73 | 22 | (US-20010033046-\$ or US-20020158377-\$ or US-20030090043-\$).did. or (US-3330645-\$ or US-3971548-\$ or US-4023676-\$ or US-4138098-\$ or US-4249719-\$ or US-4424955-\$ or US-4746038-\$ or US-4930757-\$ or US-4951929-\$ or US-5198179-\$ or US-5257280-\$ or US-5371759-\$ or US-5458320-\$ or US-5465942-\$ or US-5744050-\$ or US-5803948-\$ or US-5863490-\$ or US-5871785-\$).did. or (US-3330645-\$).did. | US-PGPUB;<br>USPAT; USOCR                 | ADJ | ON | 2008/09/25<br>09:44 |
| S74 | 3  | S73 and engage  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/25<br>09:44 |
| S75 | 1  | "20060273500"   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2008/09/25<br>09:46 |



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| S76 | 19294 | outer same inner same (pipe or tuyere or nozzle) same thread  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2008/09/25<br>09:48 |
| S77 | 455   | outer (pipe or tuyere or nozzle) same inner (pipe or tuyere or nozzle) same thread                          | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2008/09/25<br>09:48 |
| S78 | 19    | outer (pipe or tuyere or nozzle) same inner (pipe or tuyere or nozzle) same thread and furnace              | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2008/09/25<br>09:56 |
| S79 | 66    | outer (pipe or tuyere or nozzle) same inner (pipe or tuyere or nozzle) same (groove or screw) and furnace   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2008/09/25<br>10:54 |
| S80 | 2     | ("3330645").PN.   | US-PGPUB;<br>USPAT; USOCR                 | OR  | OFF | 2008/09/25<br>11:50 |
| S81 | 350   | 266/217.ccls.   | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2009/03/04<br>11:24 |
| S82 | 410   | 266/280.ccls.   | US-PGPUB;<br>USPAT                        | ADJ | ON  | 2009/03/04<br>11:24 |
| S83 | 301   | "266".clas. and nozzle same refractory and gas and metal and (jacket or cover\$3) and (nozzle same furnace) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2009/03/04<br>11:24 |
| S84 | 34    | 266/268.ccls. and nozzle and refractory   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2009/03/04<br>11:24 |
| S85 | 34    | 266/268.ccls. and nozzle and refractory   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON  | 2009/03/04<br>11:24 |

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| S86 | 350  | 266/217.ccls.  | US-PGPUB;<br>USPAT                        | ADJ | ON | 2009/03/04<br>11:24 |
| S87 | 35   | S86 and nozzle same refractory and gas   | US-PGPUB;<br>USPAT                        | ADJ | ON | 2009/03/04<br>11:24 |
| S88 | 62   | "266".clas. and nozzle same refractory and gas and metal and (heat\$3 near2 element) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |
| S89 | 268  | 266/220.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |
| S90 | 862  | 266/99.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |
| S91 | 217  | 266/100.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |
| S92 | 148  | 266/268.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |
| S93 | 1468 | S89 or S90 or S91 or S92   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |
| S94 | 194  | S93 and nozzle same (gas or vapor)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |

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| S95  | 124 | S94 and refract\$5   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:25 |
| S96  | 66  | S95 and furnace  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:26 |
| S97  | 55  | S96 and (copper or Cu or steel)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:26 |
| S98  | 66  | outer (pipe or tuyere or nozzle) same inner (pipe or<br>tuyere or nozzle) same (groove or screw) and furnace | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/03/04<br>11:26 |
| S99  | 269 | 266/220.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/07/10<br>11:14 |
| S100 | 866 | 266/99.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/07/10<br>11:14 |
| S101 | 218 | 266/100.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/07/10<br>11:14 |
| S102 | 149 | 266/268.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | ADJ | ON | 2009/07/10<br>11:14 |

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| S103 | 1475 | S99 or S100 or S101 or S102   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO          | ADJ | ON | 2009/07/10<br>11:14 |
| S104 | 196  | S103 and nozzle same (gas or vapor)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO          | ADJ | ON | 2009/07/10<br>11:14 |
| S105 | 125  | S104 and refract\$5   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO          | ADJ | ON | 2009/07/10<br>11:14 |
| S106 | 67   | S105 and furnace  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO          | ADJ | ON | 2009/07/10<br>11:14 |
| S107 | 56   | S106 and (copper or Cu or steel)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO          | ADJ | ON | 2009/07/10<br>11:14 |
| S108 | 66   | outer (pipe or tuyere or nozzle) same inner (pipe or tuyere or nozzle) same (groove or screw) and furnace | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO          | ADJ | ON | 2009/07/10<br>11:14 |
| S118 | 3497 | 266/99,100,217,218,220,265,268,280.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | ADJ | ON | 2009/07/13<br>10:15 |
| S119 | 302  | S118 and (nozzle or tuyere).clm.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | ADJ | ON | 2009/07/13<br>10:15 |

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|------|-----|-----------------------------------|--|-----|----|---------------------|
| S120 | 294 | S119 and (gas or metal or molten) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | ADJ | ON | 2009/07/13<br>10:15 |
|------|-----|-----------------------------------|--|-----|----|---------------------|

## EAST Search History (Interference)

| Ref # | Hits  | Search Query   | DBs            | Default Operator | Plurals | Time Stamp          |
|-------|-------|--|----------------|------------------|---------|---------------------|
| S109  | 16378 | nozzle and furnace and (metal or molten or melt\$4)                                      | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:08 |
| S110  | 567   | (nozzle and furnace and (metal or molten or melt\$4)).<br>clm.                           | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:08 |
| S111  | 105   | (nozzle and furnace and (metal or molten or melt\$4) and<br>refractory).clm.             | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:09 |
| S112  | 25    | (nozzle same furnace same (metal or molten or melt\$4)<br>same refractory).clm.          | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:10 |
| S113  | 12    | (nozzle same furnace same (metal or molten or melt\$4)<br>same refractory same gas).clm. | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:10 |
| S114  | 84    | (nozzle same furnace same (metal or molten or melt\$4)<br>same gas).clm.                 | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:12 |
| S115  | 56    | 266/218.ccls. and nozzle   | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:41 |
| S116  | 75    | 266/218.ccls. and (nozzle or tuyere) and gas   | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:41 |
| S117  | 50    | 266/218.ccls. and (nozzle or tuyere) and gas and (nozzle<br>or tuyere).clm.              | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/10<br>11:42 |
| S121  | 1790  | 266/99,100,217,218,220,265,268,280.ccls.   | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/13<br>10:16 |
| S122  | 264   | S121 and (nozzle or tuyere).clm.   | USPAT;<br>UPAD | ADJ              | ON      | 2009/07/13<br>10:16 |

|      |     |   |                |     |    |                     |
|------|-----|---|----------------|-----|----|---------------------|
| S123 | 257 | S122 and (gas or metal or molten)   | USPAT;<br>UPAD | ADJ | ON | 2009/07/13<br>10:16 |
| S124 | 186 | S123 and refractory   | USPAT;<br>UPAD | ADJ | ON | 2009/07/13<br>10:16 |
| S125 | 325 | S121 and (nozzle or tuyere) same (gas or metal or molten or melt\$4) and refractory         | USPAT;<br>UPAD | ADJ | ON | 2009/07/13<br>10:31 |
| S126 | 216 | S121 and (nozzle or tuyere) same (gas or metal or molten or melt\$4) same refractory        | USPAT;<br>UPAD | ADJ | ON | 2009/07/13<br>10:31 |
| S127 | 66  | S121 and ((nozzle or tuyere) same (gas or metal or molten or melt\$4) same refractory).clm. | USPAT;<br>UPAD | ADJ | ON | 2009/07/13<br>10:35 |

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